Abstract
This paper discusses the requirements and problems of organising government support to new ventures in regional project networks referred to as New Venture Support Networks (NVSN). In particular, the focus is on the role of key actors in facilitating and maintaining network cooperation given the challenge posed by the heterogeneous partner structure and the “artificial”, political origin of these networks. For the purpose of analysing the role of key actors use is made of the promoter model, which distinguishes between key actor functions based on the characteristics of actors and the organisational resources that they use. The qualitative empirical material consists of exploratory case studies in five NVSN that have been established in 1998 within the German governmental initiative “EXIST – Entrepreneurs from Universities”.
Introduction

Fostering entrepreneurship is not a new solution for expediting structural economic change or the creation of new employment opportunities (e.g. Szyperski and Nathusius 1975). In the regional development context, for instance small business incubators and technology parks have become popular devices to promote new firms in communal and regional policy making (Allen and Rahman 1985). In fact, improving the economic structure of a certain region is one argument advocating the promotion of new firm development through economic policy (Koch 2003). It is argued that new businesses create positive effects in a region, which include not only the creation of new jobs, but also other effects such as improvement of technological adaptability, potential for innovation and competitiveness of the region.

While the aforementioned factor legitimising state intervention in favour of small businesses focuses on positive regional effects, another one addresses possible market failures. This proposed remedy is based on the assumption that state intervention can correct asymmetrically distributed or insufficiently available information. For example, there are many individuals with the willingness to start a new business who have a high level of technical expertise, but who lack basic entrepreneurial competencies to implement it. Measures such as consultation, coaching and networking can compensate for this deficit within a period short enough to ensure that the business idea does not become outdated.

New venture support as an aggregate concept comprises not only public institutions, but also a number of private organisations. Thus there is a wide range of support institutions available for the potential entrepreneur, including in the public sector e.g. ministries, universities, technology centres and business development agencies, and in the private sector organisations such as financing institutions, business associations, business angels as well as consultants and solicitors (IfM 1997). However, the activities of these institutions are often uncoordinated with each other. This causes problems such as confusion among potential entrepreneurs regarding to whom they should turn with a specific problem, overlaps and gaps in the service as well as variations in the support quality between the different institutions (Johnson et al. 2000).

New Venture Support Networks (NVSN) are a response to this coordination problem. They are founded by political initiative for the purpose of bundling together different
public and private sources of information and support for potential entrepreneurs. The specific aims of NVSN include creating transparency to the choice of available support and easing the access to it, removing overlaps in and filling gaps between the support offered by different institutions and reaching synergy instead of competition between the public and private institutions involved in new venture support (IfM 1997; Johnson et al. 2000).

However, as attractive as the idea of combining the services of different institutions in a single support programme may seem, cooperation in such a network faces challenges especially due to the heterogeneous actor structure and the initial lack of network culture resulting from the “artificial” political origin. This paper sets out to investigate the requirements for and challenges faced in developing and sustaining cooperation in NVSN. Since networks in this paper are understood as social systems from the perspective of methodological individualism, certain key actors are assumed to play a central role in this context. The key actor roles are analysed using a framework adopted from the German innovation management literature called the “promoter model”, which distinguishes between key actor functions based on the characteristics of actors and the organisational resources that they use.

In sum, this paper examines the following key question: How does cooperation in New Venture Support Networks function and what role do key actors play in facilitating and maintaining it? Empirically, the analysis is based on qualitative data from case studies conducted in all five regional NVSN established within the German federal support programme “EXIST – Entrepreneurs from Universities”. This is the largest NVSN initiative in Germany, founded by the Federal Ministry of Education and Research in 1998.

Challenges for Cooperation in New Venture Support Networks

Requirements for Network Cooperation

The network is understood as a dynamic organisation form that evolves in sequences of interaction and has thus a history and a future (Håkansson and Snehota 1995). The basic condition for network cooperation over time is that, for each partner, the benefits of continuous network membership exceed its costs. The benefits, which are subject to individual perception of the actors, essentially depend on the quality of inputs made by the other network members on the one hand, and on the members’ willingness to make
these inputs accessible to others on the other hand (Koch 2003). Consequently, a fundamental norm in network cooperation is reciprocity, which implies that a social exchange always leads to an instant or later reciprocal exchange (Sydow 1992). Reciprocity has two important implications to our analysis of NVSN development because it distinguishes network based relationships from anonymous non-recurring market transactions.

First, network interaction should yield open exchange of information and experiences that can be used by the other actors in the same network without additional costs (Herrmann-Pillath 2000). In order for this to work, the network actors should learn to trust that they will be reciprocated eventually when they share their experiences (human capital) and relations (social capital) with the other actors. As a result of reciprocal exchange, the costs of each subsequent transaction decrease based on the history of previous transactions. Second, reciprocity involves relation-specific investments which create a certain level of dependence between the network actors. This affects the willingness to sustain cooperation with the other network members and also enhances the continuity of the network itself.

Specifics of Cooperation in NVSN

Two characteristics of NVSN make the achievement of reciprocity and thus fulfilling the condition of benefits exceeding costs for the individual members challenging: the heterogeneous partner structure and the “artificial” political origin of the network, which results in an initial lack of network culture. The heterogeneous partner structure implies a heterogeneous range of perceptions regarding the benefits and costs of the network membership. On the one hand, this perception is affected by the long-term interests of the partner. For example, municipal authorities have a long-term interest in creating more jobs and thus generating more tax income, chambers of commerce want to increase their membership figures through start-ups and thus achieve more influence in political decision-making, and private consultants and credit institutions follow their own long-term commercial interests (IfM 1997). On the other hand, the perception is also influenced by the historical context of the situation. Due to the structural uncertainty inherent in the evaluation of future benefits and costs the perception of benefits and costs cannot be based on rational choice (Kraft 1960). It is rather constructed by each individual member on the basis of subjective rationality, which particularly takes into account individual past experiences and the historical context of
the decision making situation (cf. Budzinski 2000; Geue 1997). Thus the perception of benefits and costs will, among other causes, depend not only on the individual interests concerning the future, but also on unique past experiences with the other network partners as well as on existing alternatives to generate the benefits offered by the network through other means.

The perceived likelihood of obtaining these individual benefits through network participation will depend on the extent to which they can be generated within the structure and intensity of network relations. In turn, this will be influenced by the quality of common relevant realities (cf. Berger and Luckmann 1979). More specifically, the perceived chance of individual members to catch the benefits will be affected by the level up to which the individual interests are considered to be relevant by the network community as well as by the congruence of expected modes of action for their fulfilment through network operations. Both the degree of goal congruence and similar mental models are components of the above common relevant realities. Individual realities of network members may be harmonised by acts of communication. Thus the expected benefits become socially communicated.

The extent to which common relevant realities exist among the members of an NVSN also influences the presence of network continuity and mutual orientation. In this context, particularly in the early stage of network cooperation a major challenge is posed by the “artificial” nature of the network, which is due to the network being politically initiated instead of having been established by the regional organisations out of their own initiative. This “artificiality” results in more limited common relevant realities in the early stage, further implying that the social communication of benefits is more difficult here than in “naturally” developed networks.

In light of this characterisation, Koch (2003) suggests that key actors play a crucial role in facilitating and maintaining network cooperation. Following this assumption, the characteristics and organisational resources used by the key actors are analysed in more detail in the next section adopting a conceptual framework called the “promoter model” from the German innovation management literature.

**The Promoter Model**

The promoter model, as developed by Witte (1973), defines promoters as organisational actors who “foster an innovation process actively and intensively” (Witte 1973, p. 15).
The model is an extension of the “champion” concepts, which have also been used in analysing the role of key actors in innovation processes (see e.g. Schon 1963; Chakrabarti 1974). Whereas the champion concepts assume the existence of one person being the motor of an innovation process, the promoter model distinguishes between key functions and key actors (Hauschildt and Schewe 1999). Four distinct ideal types called “promoter roles” have been identified in a number of empirical research projects: promoter by power, promoter by know-how, process promoter, and relationship promoter (Gemünden and Walter 1999; Hauschildt and Kirchmann 1999; Witte 1973). In particular, these constructs describe certain characteristics of the actors occupying these roles as well as the organisational resources they use in promoting the innovation process. Since the roles represent functions rather than persons, one actor can occupy more than one role (“personal union”) and one role can also be occupied by more than just one actor (Witte 1973).

A promoter by power usually occupies a managerial position, which enables him to use hierarchical power such as sanctions. In the innovation management context, the power resource is used to advocate the innovation to other managers and by this directing organisational support to innovative activities (Gemünden 1988). The promoter by know-how does not have much hierarchical power, but his influence is based on professional expertise and is thus argumentative by nature (Witte 1973). Using his extensive organisational knowledge, the process promoter takes responsibility in maintaining information relations between the other promoters and to other actors in the organisation as well as in organising e.g. the process flow, division of work, schedules and making sure that the innovation complies with the strategic planning of the organisation as a whole (Hauschildt and Chakrabarti 1999). Gemünden and Walter (1999, p. 122) define relationship promoters as „persons, who promote inter-organisational innovation processes actively and intensively based on good personal relations to key actors that belong to the partner organisations and relevant third parties and possess critical resources.” The authors view personal traits like social and communication competencies, existing contact networks and cooperation experience as the primary resources used by the relationship promoters. Figure 1 summarises the promoter roles and the respective characteristics and organisational resources.
<table>
<thead>
<tr>
<th>Promoter role</th>
<th>Characteristics and organisational resources</th>
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<tr>
<td>Promoter by power</td>
<td>Organisational (hierarchical) power</td>
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<td>Promoter by know-how</td>
<td>Professional expertise; opinion leadership</td>
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<tr>
<td>Process promoter</td>
<td>Extensive organisational knowledge</td>
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<tr>
<td>Relationship promoter</td>
<td>Contact network, interpersonal skills</td>
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Sources: Gemünden (1988); Gemünden and Walter (1999); Hauschildt and Kirchmann (2001); Witte (1973)

**Figure 1: Characteristics of promoter roles**

**Data and Methods**

Our empirical material consists of case studies conducted in five regional NVSN established in 1998 in Germany within the governmental initiative “EXIST – Entrepreneurs from Universities”. Each of the five networks - Dresden exists, GET UP, bizeps, PUSH! and KEIM – is located in a different region of the country reflecting a different industrial structure and culture. The author team is involved in the bizeps network and has thus first-hand experiences from cooperation in NVSN. The central role of higher education institutions is a special characteristic of all EXIST networks. Besides fostering innovative start-ups and thus creating new jobs, the EXIST program intends to establish a “culture of entrepreneurship” at universities and polytechnics in teaching and research (BMBF 2001).

The regional coordination of the NVSN is the responsibility of a coordination agency, which is located either at a university or in a separate entity such as a network association. The coordination agency acts as the central network node with staff responsible for the operative work and it is subordinate to a board featuring representatives from the leading network partner organisations. The board usually meets several times annually to discuss strategic issues but is not involved in the daily network operations. The EXIST programme as a whole is coordinated by a project management organisation on behalf of the programme initiator, the Federal Ministry of Education and Research, and it is given scientific support by the Fraunhofer Institute for Systems and Innovation Research. Moreover, EXIST features an advisory board of external experts. The advisory board performed an extensive evaluation of each of the five networks after the first three years of operation based on criteria set by the Ministry.
The results of the evaluation determined the granting or rejection of government financing for the next three years. After the two three-year periods (in 2004) the government funding will be strongly reduced and retargeted. The goal of the programme is to create sustainable cooperation between the network partners which extends beyond the initial six-year funding period.

Since this study presents the first application of the promoter model in the context of NVSN, we decided to conduct an exploratory qualitative study in order to obtain preliminary results to base further research on. In order to enhance the validity of the data, we applied data triangulation in form of different kinds of information sources (cf. Curran and Blackburn 2001). We started the study by conducting three “metainterviews” with people involved in the coordination of the whole EXIST programme. These discussions concerned the view of the interviewees on the development of each of the five networks as well as their opinion on who are the promoters in each case. Based on these identifications, we chose three potential promoters in each network for an interview. In one case we got to talk to only two, in the other cases all three potential promoters, thus resulting in a total of 14 interviews. The “metainterviews” and two of the case study ones were conducted over the telephone, while the rest were carried out face-to-face. The “metainterviews” lasted approximately 30 minutes each, while the case study interviews had a varying length from 45 minutes to over two hours.

The semi-structured interviews of the potential promoters concerned both the development of the NVSN in general and the role of key actors in it in particular. For the sake of validity, both indirect and direct questions were featured. The indirect questions were structured around the four network management functions as described by Sydow (2001): \textit{Selection} (entries and exits), \textit{allocation} (tasks and resources allocated to each partner), \textit{regulation} (formal rules and informal codes of conduct) and \textit{evaluation} (determination and distribution of costs and benefits between the network partners.). These questions formed the main part of each interview. A specific turning point that was discussed with each interviewee was the project evaluation performed by the advisory board after the first three years of network operation. At the very last stage of the interview, the interviewees were presented a graphical summary of the three promoter roles and were asked directly to identify one or more such actors (including the interviewee him-/herself) in their respective networks and to tell us why this
particular person is a promoter. In the presentation of the results, both the networks and the interviewees are treated anonymously in order to preserve confidentiality.

Results

Promoters in New Venture Support Networks

Since the object of study in the promoter model has so far been the innovation process, the concepts presented above need adjustment when applied to NVSN. Hence, before proceeding to the analysis of our actual research question, we need to investigate the nature of promoter roles in NVSN based on our empirical data.

In the EXIST networks, promoter by power and promoter by know-how appear to play only a marginal role in facilitating and maintaining cooperation. The relatively low importance of the promoter by power appeared to be due to the low level of legitimacy of hierarchical power in this context, which appeared to have been used in only one case. The use of informal power was somewhat more common. This was particularly manifest in applying a power mechanism that we coined “operational isolation”, which refers to a de facto exclusion of a partner from network activities. Moreover, it was also reported that some actors exercised informal power based on their authoritative appearance and behaviour in network meetings. In the innovation management context, the promoter by know-how is at the centre of the whole innovation process. Obviously, this role has far less importance in the network cooperation context. However, similarly to the original promoter model, know-how was used as yet another form of informal power, namely opinion leadership.

Not surprisingly, process and relationship promoters were by far the most common promoter roles. However, while the boundary between these two has remained ambiguous conceptually (Hauschildt and Kirchmann 1999), it is even more difficult to distinguish between them empirically. Therefore we treat both as one function called the process and relationship promoter. This function appeared rather similar to the original concept in our case studies. That is, the actors occupying this promoter role had one or more of the following characteristics: 1) extensive knowledge of the network structure and partners, 2) external contact networks, 3) good social skills and 4) good organising ability.

Finally, it seems that the position of the person in the network has a close connection with his promoter function. The process and relationship promoter role was mostly
associated with persons who occupy fulltime or otherwise central positions within the network, in particular in the coordination agency, the board or in boundary spanning positions in the main network partner organisations. Firstly, this promoter role requires a deep understanding of how the network works and in particular which roles the different partners play in it. Only persons who are involved in the network operations on a fulltime or at least regular basis appear to have this knowledge. More importantly, these persons are often also obliged to foster cooperation and joint activities within the network (and thus are more likely to take on a process and relationship promoter role) since their job descriptions require them to coordinate network activities. Second, those relationship promoters who use their external contacts need to have a central position to make use of them. For example, media contacts are important only when the actor has access to the PR-related decision-making.

Promoters and Network Cooperation

Our case studies show a number of tasks for promoters that appear to be crucial for network cooperation. We categorised these to internal and external ones. The internal tasks are performed within the network organisation and concern the network partners, while the external tasks deal mainly with parties external to the network. We identified four internal and two external tasks that appeared particularly important. These are discussed below in terms of the promoter roles and illustrated with examples from the cases.

The first external task concerns the acquisition of funds. This is important because funds are crucial both for individual members (e.g. research funds for universities) and to the network as a whole (e.g. funding for fulltime staff at the coordination agency). For the first six years the funding is provided by the state within the EXIST programme. However, the idea of a sustainable regional effect assumes that the networks are able to maintain themselves – perhaps in a smaller scale involving only the core partners actively – also after the initial six-year period. In this context, the external contact networks of the process and relationship promoters appear to play a substantial role. For example, in one network a promoter has already acquired additional funding from an EU programme as well as through his extensive contacts with venture capitalists. The interviewees in this network were confident that – given a little starting allowance from public funds – they would be able to finance their network using private sources.
The second external task comprises creating and maintaining a positive public image for the network. This appeared to be an important benefit in three networks in form of reputation enhancement for the partners and it has also been important in attracting major regional organisations to participate in the network. For example, in one case there was a special process and relationship promoter present in the initial phase of the network. His role as a local celebrity with a good reputation was assessed very important for the public image of the network. This, on the other hand, was reported having been a major factor in attracting new important partners, such as a large regional university.

The first internal task concerns facilitating and managing network operations and processes. These refer to day-to-day operations in the network where the inputs of different partners need to be integrated, e.g. seminars, events or business plan competitions. Although the promoters by know-how do appear to play a role in planning network projects, this task as a whole is clearly the domain of process and relationship promoters. There seems to be a pronounced need in the EXIST networks for one or more actors who, proverbially, set and keep the wheels in motion.

Directly related to the first task is the second one, which relates to maintaining relationships within the network in the day-to-day operations. It seems important in this kind of cooperation involving heterogeneous actors that the network coordinators are able to convey the message that the interests of each partner are taken into account in planning network operations. That is, if one network project is less relevant to one group of partners, they have to be able to rely on to be considered more when a subsequent project is planned. Since this task requires good social skills, it belongs to the process and relationship promoters.

The importance of the first two internal functions is most apparent in cases where they do not work. For example, in one of the EXIST networks the original operative coordinator (identified as process and relationship promoter) was perceived as a diplomatic motor of the network, who was considerate with respect to the multitude of interests. However, once this person left the network in order to proceed with his career, the cooperation atmosphere took a negative turn. The new coordinator was perceived to have wrong priorities in planning network operations. Further, he did not appear to take the different interests of the partners into account to the extent his predecessor did. This appears to refer to a lack of knowledge of the network structure and partners.
The third internal task was identified as managing entries to and exits from the network. In performing this task, both the promoters by power and the process and relationship promoters appeared to play a role. Starting with the latter, both the external contact networks and the social skills of the process and relationship promoters appeared to be important in attracting relevant regional institutions to participate in the network. The promoters by power, on the other hand, seemed to play a role in cutting redundancies in the network. This has occurred by sanctioning inactive or otherwise problematic partners, thus making the network more effective either by making these actors cooperate actively or practically forcing their exit. For example, the power mechanism that we coined “operational isolation” has been used in one EXIST network by removing inactive partners from the collective public relations work. In this case, this has been an effective sanction because reputation enhancement is an important benefit of network membership.

The fourth internal task – intervening when critical situations occur – was particularly evident in our cases in the context of the interim evaluation process. The result of this evaluation determined the granting or rejection of a second three-year period. In almost all networks promoters were needed to organise closer collaboration and make the partners present the network together in a way to ensure the further funding. This was particularly evident in one case, where there had not been much cooperation between the leading partners before the evaluation process commenced. One promoter (a personal union of all three promoter roles) practically forced the partners to work together closely in order to meet the evaluation criteria, which the network (and also all others) eventually did. Besides social skills, also informal power in the form of opinion leadership as well as a threat of resignation (in this particular case an effective sanction) was used to force the start of closer cooperation. However, the evaluation process led to a long-term positive effect, since the close cooperation was reported to have remained also after the Ministry criteria had been met successfully. This hints at the possibility of influencing the development of network cooperation through impulses such as an external evaluation.

Conclusions

We set out on the role of key actors in facilitating and maintaining network cooperation in the five EXIST New Venture Support Networks in Germany. In general, cooperation
in NVSN consists of reciprocal exchange between the member organisations when performing activities to support new ventures and potential entrepreneurs. Based on our empirical results, the main role of the key actors concerns not so much being engaged in the reciprocal exchange itself, but rather creating the framework for it.

Deriving from the above discussion of the internal and external tasks performed by the key actors, we identified three general functions for key actors in the network cooperation context: a) generating and communicating network benefits, b) managing permanent network activities to provide benefits to members and c) maintaining a balance between differing interests of the member organisations. In terms of the promoter roles, our main finding is the domination of process and relationship promoters in the five EXIST networks. This is also reflected in the above functions where process and relationship promoters are involved in generating and balancing benefits, performing “process management” and acting as boundary spanners. In comparison to the process and relationship promoters, the role of the promoters by power appeared small. Moreover, the latter role was more evident in individual, specific situations such as sanctioning inactive members or helping the network pass the interim evaluation, whereas the process and relationship role seemed to be required on a constant basis.

Benefits like gaining access to government funds and enhancing one’s reputation through network image appear to be important for the network members. Catering for these benefits is a main function for the key actors in the EXIST networks. This means not only helping to generate those benefits but also to communicate to the members convincingly that the network will be able to provide these benefits also in the future. Furthermore, it seems that key actors carry considerable responsibility in “keeping the wheels in motion” within their networks. Ensuring permanent network activities appeared to be vital in the networks as a means to avoid standstill because of the volunteer type membership in the networks. Here, the process and relationship promoters are needed to integrate the inputs of different member organisations in order to facilitate activities which in turn provide benefits like access to potential customers or reputation enhancement through, for example, business plan competitions or events for potential entrepreneurs. Finally, the key actors also appear to have an important diplomatic function, which refer to keeping the balance over time between the sometimes conflicting interests of the different member organisations.
In sum, due to the artificial origin of the EXIST networks as well as the variety of partners in them, cooperation seems a hard goal to achieve. For cooperation to occur, members have to stay continuous and active in their membership, because otherwise the vital inputs for reciprocal exchange processes will not be provided. A simple precondition for continuous membership has been that the perceived benefits of membership have to exceed its perceived costs. Here, key actors carry significant process and relationship promoter roles which go beyond the main network activity of providing new venture support. In this respect, the findings presented here may also have implications for other inter-organisational new venture support projects, such as in regional development contexts involving technology transfer from universities. Also in these cases a heterogeneous partner structure is likely due to diverse organisations being needed to support the multifaceted object of a potential entrepreneur. The EXIST cases indicate that there is a need for network actors who generate and balance benefits required for the economic viability of such project networks. Moreover, it appears that these benefits may have to go beyond those from the reciprocal exchange between the partners themselves.

However, our preliminary results leave several gaps to be filled by future research. First, our information concerns only the view of the few central actors in the respective networks, while largely excluding the “peripheral” ones. Including a broader range of members in the EXIST networks would help to provide a more detailed picture on the perception of benefits and costs of network membership. Second, we have little information on the extent to which there are positive effects on the regional environment, which is the de facto political goal of NVSN and thus also a measure of the success of network cooperation. In one case, which showed notable positive effects for the network participants, the project coordinator was very sceptical about the regional effects. However, this is a complicated issue to research accurately. Not only is it debatable how the regional effect of an NVSN could be measured in the first place, but the long-term effect – which is in fact what counts politically – will not show in full scale until in several years’ time. The third interesting issue for future research concerns the institutional arrangements surrounding the EXIST networks. That is, how does the framework of rules and procedures in the political programme affect the nature of cooperation in these networks and how could network cooperation be improved by changing this framework.
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